WATCHING THE WEATHER WITH UNCLE SAM

The eighth of a series of ten talks by Welby R. Stevens, assistant meteorologist, United States Weather Bureau, delivered through Station WRC and 32 other stations associated with the National Broadcasting Company, January 23, 1930.

The tornado is probably the most spectacular of all weather phenomena. It is the most diminutive, usually a few hundred yards in width and seldom as much as half a mile, yet it is the most destructive and violent of all storms. Since tornadoes occur in the southeast portion of well-developed low pressure areas, the local weather conditions preceding their formation are south to southwest winds, high temperature and high humidity. One of the most distinctive features of a tornado is a peculiar funnel-like cloud extending from dense black clouds down to the ground, so that it looks like a giant whirlwind. In fact it has a rotary motion just like an ordinary whirlwind. The funnel cloud sways from side to side and often writhes and twists. Even when the cloud is some distance away there is a heavy rumbling sound like that of an approaching railroad train or distant thunder. The noise increases as the cloud draws nearer and its passage creates such an uproar that all other sounds are deadened.

The destruction caused by a tornado is often weird and unusual. Large trees are stripped of their branches; brick and stone buildings are smashed; tin roofs are torn from buildings and often carried many miles through the air; even locomotives have been blown from the track.

Actual measurements of the wind velocity in a tornado have never been made, but reasonable estimates can be obtained from their effects. These estimates range from 200 to as high as 500 miles per hour.

Tornadoes may occur in some part of the United States in any month of the year. In winter and early spring they may be expected in the Gulf and South Atlantic States, but as the season advances they occur farther and farther to the northward.

They usually move from southwest to northeast with a speed varying from 20 to almost 70 miles per hour. The path ranges in length from a few rods to more than 200 miles. The average is probably about 25 miles, but due to their tendency to rise from the earth and descend again at some point farther on, the paths often are not continuous. The width of the path of destruction varies from about 50 feet to about half a mile, although in rare cases it may be as much as a mile.

Most all of them develop in the afternoon hours, although they may develop at any hour of the day or night, especially in the Gulf States.

In order to escape a tornado in an open place a person should take the bearings of the storm and its course. If it is discovered to the west or southwest, one should run toward the southeast. If it is far to the north or south one is usually safe. If a person is in a wooden building the safest place is in the southwest corner of the cellar; if the building is brick or stone a person should leave it if at all possible.

Although this type of storm is to be feared more than any other, we can get considerable comfort from the fact that the probability of injury from a tornado is less than that of being struck by lightning.

On next Monday we shall tell you about some of the characteristics of hurricanes.